



Automobile Trips to School and Safety Perspectives of Unplanned Lokoja Metropolis in North Central Nigeria

* Dr. Adetunji Musilimu Adeyinka 

Faculty of Social Sciences, Federal University Lokoja, Kogi State, Nigeria

E mail: musilimuadetunji@yahoo.com

ARTICLE INFO:

Article history:

Received 23 March 2019

Accepted 3 August 2019

Available online 1 September 2019

Keywords:

Urban;
Transportation;
Location;
Safety;
Planning.

This work is licensed under a
[Creative Commons Attribution -
NonCommercial - NoDerivs 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/).

"CC-BY-NC-ND"



This article is published with Open
Access at www.ijcua.com

ABSTRACT



Check for
Updates 

Many studies on transport research did not consider the consequences of high reliance on automobile trip to schools which frequently resulted to road traffic crashes, traffic delay, and late arrival to school, injuries and sometimes death of victims especially students. As a result this research examines the consequences of automobile trip to school among secondary school students in Lokoja metropolis. It aims to investigate the safety of the use of automobile in an unplanned city like Lokoja, with the specific objectives of ascertaining the number of pupils who embark on different automobile trips; the safety measures, and the casualty cases. Three hundred students were selected for questionnaire administration across six selected secondary schools in the city. Data on students' road traffic crashes were obtained from archives. Descriptive and inferential statistics were employed for analyses. Findings reveal that more than 70% of students rely on automobile to travel to schools. Car trips to schools were more among students of private secondary schools. Students in private secondary schools rely more on the use of a school bus. It was also discovered that students were involved more in traffic crashes along major roads. The study concludes on the use of school bus by students instead of relying on private cars.

JOURNAL OF CONTEMPORARY URBAN AFFAIRS (2020), 4(1), 61-70.

<https://doi.org/10.25034/ijcua.2020.v4n1-6>

www.ijcua.com

Copyright © 2019 Journal of Contemporary Urban Affairs. All rights reserved.

1. Introduction

Within the last two decades the number of registered vehicles in Nigeria has increased tremendously from 349, 417 in 1999 to 13, 214, 019 in the year 2017. Motor vehicles increased from 222, 507 to 7, 928, 132 for the same period, while motorcycles increased from 126, 910 to 5, 285, 887 (Federal Road Safety Corps, 2017). According to reports in the Nigeria Bureau of Statistics (2017), an approximately 4,656,725 vehicles are owned by individuals for their day to day transaction, while 6,749,461 vehicles are registered as public

transport services for both passengers and freight transport services in the country. The data suggests that the total number of Nigeria's vehicle per person is 0.06.

This can be interpreted as very low compared to what is obtainable in some of the developed countries of the world where more than 0.70 vehicles are accessible for every person in Finland,

*Corresponding Author:

Faculty of Social Sciences, Federal University Lokoja, Kogi State, Nigeria

Email address: musilimuadeyinka@yahoo.com

How to Cite this Article:

Adetunji, M. A. (2020). Automobile Trips to School and Safety Perspectives of Unplanned Lokoja Metropolis in North Central Nigeria. *Journal of Contemporary Urban Affairs*, 4(1), 61-70. <https://doi.org/10.25034/ijcua.2020.v4n1-6>

Italy, USA, Austria to mention but a few ([The World Health Organisation's Global Status Report on Road Safety, 2015](#)). Incessant increase in the importation of fairly used vehicles in some developing countries such as Nigeria to meet their travel needs such as trip to work, journey to schools, shopping and recreational activities has created serious bottlenecks for people because of inadequate road networks to accommodate vehicular movement ([Ogunsanya, 2004](#)). High automobile travel demand creates challenges that include traffic delay, road traffic crashes, fatigue and emission of toxic substances into the atmosphere that are harmful to human health ([Kopnina, Williams, 2012](#)).

Until recently, research on children demand for automobile trip to schools was very scanty in the literature compared to work or health care trips. This apparent gap in the field of transport research is unwarranted for any country striving to achieve a sustainable transport policy in the 21st Century. Studies in different parts of the world have shown that trip to school is one of the most important trip generation in any urban centre in the world. This is because it involves the children and their parents that accompany their wards to school ([Baker., Basu., Copper., Lall., Takeuch, 2005: p. 20; Department for Transport, 2013](#)). Detailed information on journey to school is highly essential because pupils can be trained to travel on their own and also because school trips generate problems such as traffic crashes, emission of toxic substances and fatigue ([Goeverden and Boer, 2013](#)). Studies have also shown that car congestion around schools during the peak times of arrival and departure create a dangerous environment for children that walk, cycle or use public transport service to and from schools ([Collins and Kearns, 2001](#) as cited in [Badri, 2013](#)). Similarly, traffic congestion along routes connecting schools create delay and late arrival to schools ([Crowford, 2006](#), as cited in [Badri, 2013](#)).

Furthermore, studies have shown that an increase in average distance from home to school in recent decades has resulted in high reliance on motorised modes of transportation such as car, and public transport services of all forms such as tricycle, motorcycle, taxi, bus and mass transit ([Easton and Ferrari, 2015](#)). The use of automobile, particularly private car, is often associated with air pollution, carbon dioxide emission, traffic congestion, road traffic crashes and other environmental health challenges ([Kopnina, Williams, 2012](#)). Short distance trips to school will promote walking and cycling and this will enhance sustainable transport to school ([Kim, 2014., Goever and Boer, 2013](#)). In an assessment of journey to school in U.S, Centre for Disease Control

and Prevention ([2012](#)) reported that children do not get adequate physical activities and this contributes to their health problems. It therefore recommended an average of 60 minutes physical activity per day for each student. In another case, an assessment of mode choice to schools in some of the developed countries, the socio-economic characteristics of the parents such as gender, employment status and level of educational qualifications determined the mode choice of their children to school. Women were more involved in escorting their wards to school ([Kim, 2014](#)). Studies on the mode choice to school in the developing world particularly in Nigeria emphasised that the location of schools relative to the residence of the students are the major determinants of mode choice ([Olawole and Olaposi, 2016., Ipingbemi and Aiworo, 2013](#)). Some of these studies did not consider the health implications of high demand for automobile trip to school. These health implications include children traffic crashes and congestion that have resulted in public concern in some major and emerging cities in the developing world, Nigeria inclusive. According to the Federal Road Safety Corps ([2017](#)), the percentage of children injured in road traffic crashes on roads in Nigeria is 6 %, while the percentage of children killed in road traffic crashes is 7% ([FRSC, 2017](#)). In the same report, 39.8% of private vehicles were involved in road traffic crashes, 58.9% were commercial vehicles, while only 1.3% of the vehicles involved in the crashes were government owned ([FRSC, 2017](#)). It is interesting to note that many of these vehicles were conveying children to school ([Badri, 2013](#)). It is on this note that this study seeks to examine the mode choice of transportation of children to school and the implications of high demand of automobile trips to school in the emerging city of Lokoja. This will give an avenue to propose a sustainable transport policy for school trips in the emerging city of Lokoja in north central Nigeria.

2. Study Area

Lokoja metropolis is the study area. The city is located on latitude 7° 45' 27.56" - 7° 51' 04.34" N of the Equator and longitude 6° 41' 55.64" - 6° 45' 36.58" E of the Prime Meridian by the confluence of Rivers Niger and Benue (see figure 1), with a total land coverage of about 63.82 sq. km. ([Adeoye, 2012](#)). Lokoja built up area comprises seven localities such as Lokoja Core Area, Adankolo, Lokongoma, Felele, Zango Daji, Army Barracks and Ganaja Village ([NPC, 2006](#)). These smaller localities which were formally separated from one another now merged together to become larger Lokoja which constitute a major city in Kogi State ([Olawepo, 2009](#)). Shortly after Lokoja became the capital of Kogi State in 1991, the city witnessed rapid

development as a result of influx of people from neighbouring towns and villages. Like many other cities in Nigeria, three types of road networks are found in Lokoja metropolis. These include Trunk A- Federal Roads (highways), Trunk B- State Roads, and Trunk C- Local Government Roads. The Trunk A Roads comprise the federal highways that connect Lokoja to other towns and states of the federation. The Trunk B- State Roads are the intra urban road networks. Many of these roads are poorly designed with non-pedestrian walk ways. This has discouraged many pedestrians particularly children to walk to and from school because of heavy traffic in the city. Many Trunk B roads are narrow, poorly maintained and connect few residential area., many public transport services such as tricycles, taxis and mass transits are forced to use the federal highways in the city (Adetunji, 2017: P.2). This has led to incessant road traffic congestions and traffic crashes within the metropolis. The last categories of urban route in Lokoja metropolis are Local Government Roads that link low density residential parts of the city. Many of these roads are earth surfaced with poor transport facilities. Some of the children that live on the outskirts of Lokoja have less access to public transport services to school. Studies have also shown that the pattern of distribution of secondary schools in Lokoja is not evenly distributed (Adetunji and Aloba, 2018). Virtually all public secondary schools in the city are located in High and Medium density areas of Lokoja. The inability of government to provide educational facilities for the fast growing population of Lokoja has led to the proliferation of substandard secondary schools at the outskirts of the city. The preference for quality education has forced many parents to allow their wards to cross the city landscape, travelling long distances in order to access educational facilities located outside their localities (Adetunji and Aloba, 2018). Many of these children rely on automobile to and from school.

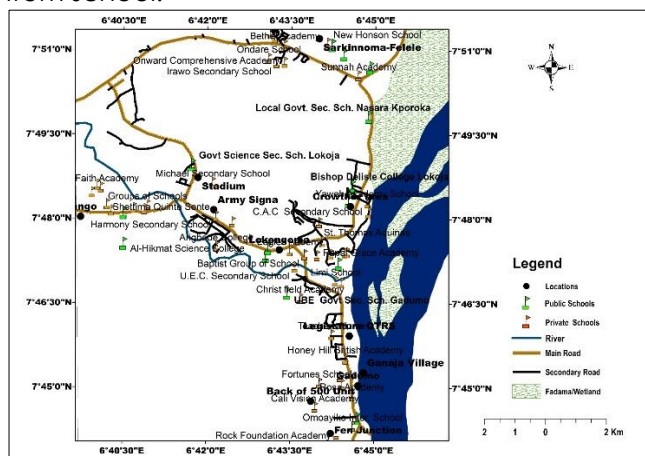


Figure 1. Distribution of Schools and Road Networks in Lokoja
Adapted From: (Adetunji and Aloba, 2018)

3. Materials and Methods

Primary and secondary data were utilised for this study. Three sets from the primary data were required for the study. The first category of data was based on socio-economic characteristics of secondary school children and their travel patterns such as mode choice of transportation, distance travelled and type of school attended. The second set of data focussed on parents' decisions on school attended by their wards and the number of children attending school in their family. The last group of data was based on children traffic crashes. Three public and private secondary schools with students' enrolment of more than 1000 population were purposively selected for the study. A structured questionnaire that was divided into two sections (parent decision on school choice for their wards and children mode preference to school) was designed to elicit information on mode trips to school. In each of the schools selected, an average of 40 children/students was selected using a table of random numbers across the junior and senior secondary schools in the city. The administration of questionnaire to the students was done with the assistance of the principals of the selected schools. The questionnaires were given to the students and were taken home to be completed and returned the next day. Data on children (students) road traffic crashes were obtained from the archive of the Federal Road Safety Corps and Federal Medical Centre (2017) in Lokoja metropolis. Descriptive and inferential statistics were employed to analyse the data.

4. Results and Discussion

The principal mode of transport to secondary schools in Lokoja is by foot particularly when a short distance is involved. Table 1 reveals that 29.9% of secondary school students walk to schools in the city. This is at variance with the study carried out in Mission Hill School by Kim (2014), where 15% of children engaged in walking to school (Kim, 2014). The use of private cars for school trip was ranked second (23.7%) of the modal split in Lokoja. Approximately 16.6% and 17.1% of the sampled students rely on tricycle and motorcycle for trip to schools respectively. The result of this analysis reveals that more than 70% of the sampled students rely on automobile for their journey to school. The use of school bus for trip to school is ranked lowest (12.8%) among the children / students in Lokoja metropolis. This is contrary to the findings in a study of mode choice of transportation to schools in Abu Dhabi, the capital of United Arab Emirate. In the findings, Badri (2013) reported that 45% of children travel to school by car, while 38.1% rely on school buses. However, the use of school bus for journey to school in some of

the advanced countries has been considered to be safer than the use of private cars to school (The Car Crash Detective, 2018).

Table 1: Mode of choice to secondary schools in Lokoja

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid Walk | 63 | 23.1 | 29.9 | 29.9 |
| School bus | 27 | 9.9 | 12.8 | 42.7 |
| Tricycle | 35 | 12.8 | 16.6 | 59.2 |
| Motor cycle | 36 | 13.2 | 17.1 | 76.3 |
| Car | 50 | 18.3 | 23.7 | 100.0 |
| Total | 211 | 77.3 | 100.0 | |
| Missing System | 62 | 22.7 | | |
| Total | 273 | 100.0 | | |

The mode choice of transportation of children to school varies according to the type of school attended. Private secondary school children rely more on car trip to school compared to public secondary school children. Table 2 reveal that 32 % of private secondary school children depend on car trip to school while 16% of public school children rely on car trip. Further analysis shows that more than 30% of public secondary school children walk to school in contrast to 27.7% of private secondary school children. Similarly, the use of school bus for school trip is more pronounced among the children of private secondary schools (15%) in comparison with public secondary school children (10.3%).

Table 2: Mode Choice of Transportation to Different Type of School in Lokoja

| Mode Choice | | Type of school attended by your children | | | | Total |
|--------------------------|-------------|--|-------|-------------------------|-------|-------|
| | | Private secondary school | | Public secondary school | | |
| | | No | % | No | % | |
| Mode of choice to school | Walk | 28 | 27.7 | 35 | 32.7 | 63 |
| | School bus | 15 | 14.9 | 11 | 10.3 | 26 |
| | Tricycle | 17 | 16.8 | 18 | 16.8 | 35 |
| | Motor cycle | 9 | 8.9 | 26 | 24.3 | 35 |
| | Car | 32 | 31.7 | 17 | 15.9 | 49 |
| Total | | 101 | 100.0 | 107 | 100.0 | 208 |

The decisions of parents to allow their ward to walk to school varies with: (1) No. of students attending school in the family, $F= 8.985, <P.00$; (2) Distance of Residence to School, $F=7.376 <P.01$; (3) Route connected to the location of the school attended by student, $F=8.699 < P.00$; (4) Type of School attended by students, $F= 1.960 < P.17$ (see Table 3). In many communities in Africa where many families are polygamous in nature, there is the tendency for children to walk to school particularly where many students are of school age. Also, children whose schools are located in their neighbourhoods may likely walk to school in contrast to children with schools outside their localities. The route leading to the location of a school attended by the children also determines to a large extent whether the children walk or rely on automobile to school. The provision and availability of pedestrian walk ways and location

of schools away from heavy traffic may encourage parents to allow their wards to walk to schools rather than rely on automobile for trip to schools.

Table 3: Variables that Determine whether Children Walk to School in Lokoja

| | | ANOVA | | | | |
|---|----------------|----------------|----|-------------|-------|------|
| | | Sum of Squares | Df | Mean Square | F | Sig. |
| No of students attending school in the family | Between Groups | 4.410 | 1 | 4.410 | 8.985 | .003 |
| | Within Groups | 48.100 | 98 | .491 | | |
| | Total | 52.510 | 99 | | | |
| Type of school attended by your children | Between Groups | .490 | 1 | .490 | 1.960 | .165 |
| | Within Groups | 24.500 | 98 | .250 | | |
| | Total | 24.990 | 99 | | | |
| Distance of your residence to school | Between Groups | 4.255 | 1 | 4.255 | 7.376 | .008 |
| | Within Groups | 54.234 | 94 | .577 | | |
| | Total | 58.490 | 95 | | | |
| Route connected to the location of the school attended by your children | Between Groups | 5.813 | 1 | 5.813 | 8.699 | .004 |
| | Within Groups | 62.145 | 93 | .668 | | |
| | Total | 67.958 | 94 | | | |
| Sex of the student | Between Groups | .423 | 1 | .423 | 1.687 | .197 |
| | Within Groups | 24.538 | 98 | .250 | | |
| | Total | 24.960 | 99 | | | |

It is pertinent to note that many parents prefer their wards to travel to school by automobile as a result of the consideration of many factors. For instance, Table 4 indicates that 42.5% of parents considered convenience as the most priority for their wards to travel using automobiles. More than 50% of parents

considered safety as important factor for allowing their wards to travel by automobile to school because many secondary schools in Lokoja are located on major roads where traffic is heavy during the peak periods.

Table 4: Parent Preference on Automobile Trips to School

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-------------------|---------|---------------|--------------------|
| Valid | Convenience | 99 | 36.3 | 42.5 |
| | Safety | 120 | 44.0 | 94.0 |
| | Weather condition | 14 | 5.1 | 100.0 |
| | Total | 233 | 85.3 | 100.0 |
| Missing | System | 40 | 14.7 | |
| Total | | 273 | 100.0 | |

Studies have shown that high demand for automobile trip to school has serious implications on student's health in terms of air pollution around the school premises, traffic congestion and road traffic crashes that result in injuries and deaths of children who are the leaders of tomorrow (Kim, 2014; Goeverden and Boer, 2013). In the last twelve months, thousands of children who are of school age have been involved in road traffic crashes in Nigeria. Table 5 indicates that 1765 children were injured in road traffic crashes in 2017 in Nigeria. Kaduna State has the highest number

(225) of children injured in road traffic crashes. This is closely followed by Kano State with a total number of 142 children. Akwa Ibom and Cross River States recorded the lowest number of children injured in road traffic crashes with 2 and 5 respectively. Kaduna State recorded the highest number of children that died in road traffic crashes. Bauchi State was ranked second in terms of children who lost their lives in road traffic crashes in 2017 in Nigeria.

Table 5: Number of Children involved in Road Traffic Crashes on State Basis in 2017

| State | Number of Children Injured on Road Traffic Crashes | Children Killed |
|-------------|--|-----------------|
| Abia | 11 | 0 |
| Adamawa | 12 | 2 |
| Akwa Ibom | 2 | 4 |
| Anambra | 16 | 8 |
| Bauchi | 128 | 23 |
| Bayelsa | 4 | 4 |
| Benue | 49 | 12 |
| Borno | 6 | 4 |
| Cross River | 5 | 0 |
| Delta | 15 | 7 |
| Ebonyi | 21 | 11 |
| Edo | 56 | 19 |
| Ekiti | 11 | 1 |
| Enugu | 61 | 6 |
| FCT | 102 | 9 |
| Gombe | 46 | 6 |
| Imo | 19 | 3 |
| Jigawa | 66 | 12 |
| Kaduna | 225 | 53 |
| Kano | 142 | 18 |
| Katsina | 114 | 11 |
| Kebbi | 19 | 2 |
| Kogi | 62 | 18 |
| Kwara | 34 | 10 |
| Lagos | 22 | 5 |
| Nasarawa | 106 | 10 |
| Niger | 82 | 20 |
| Ogun | 67 | 7 |
| Ondo | 52 | 20 |
| Osun | 88 | 15 |
| Oyo | 84 | 8 |
| Plateau | 48 | 8 |
| Total | 1765 | |

Source: Federal Road Safety Corps, 2017

The situation in which children are involved in road traffic crashes in Lokoja metropolis is not at variance with what occurs in other states of Nigeria. For instance, Table 6 reveals that 136 children were involved in road traffic crashes in Lokoja in 2011. As high as 28 children were involved in road traffic crashes in the month of December,

2011. This period coincided with the festive period when the flow of vehicular traffic is heaviest in the city. The number of children involved in road traffic crashes reduced from 136 in 2011 to 87 in 2012. Table 6 indicates that 14 children were involved in road traffic crashes in January, August and December, 2012 respectively.

Table 6: Children Traffic Crashes for 2011 and 2012

| MONTHS | 2011 | 2012 |
|-----------|------|------|
| JANUARY | 7 | 14 |
| FEBRUARY | 3 | 7 |
| MARCH | 12 | 4 |
| APRIL | 7 | 5 |
| MAY | 6 | 01 |
| JUNE | 13 | 8 |
| JULY | 16 | 9 |
| AUGUST | 22 | 14 |
| SEPTEMBER | 1 | 6 |
| OCTOBER | 9 | 1 |
| NOVEMBER | 12 | 4 |
| DECEMBER | 28 | 14 |
| TOTAL | 136 | 87 |

Source: Extracted from the Archive of FRSC, Lokoja Kogi State, 2012

At a more disaggregate level, the number of children of school age involved in road traffic crashes is more pronounced along Lokoja- Kabba Junction route and Lokoja- Ganaja- Anyigba road(See Table 7).

Table 7: Children Involved in Road Traffic Crashes across Different Routes Segments in Lokoja Metropolis 2011-2012

| LOCATION | ROAD CRASHES ALONG DIFFERENT ROUTES | | | | | | No.of Crashes | Months |
|--------------------------|-------------------------------------|-----------------|------------------------|------|------|------|---------------|-----------|
| | Lokoja-Koton-Karffe-Abuja | Lokoja-Ajaokuta | Lokoja-Zariagi – Okene | | | | | |
| | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 | | |
| Felele | 2 | - | - | - | - | 1 | 3 | January |
| Koton-Karffe | 3 | 2 | - | - | - | 4 | 9 | February |
| Lokoja | 3 | - | - | - | - | 2 | 5 | March |
| - | - | - | - | - | - | 1 | 1 | April |
| Zariagi | - | - | - | - | 4 | - | 4 | May |
| Natako-Zariagi Felele | 6 | - | - | - | 2 | 3 | 11 | June |
| Kabba Junction | - | - | - | - | 4 | 2 | 6 | July |
| Lokoja(Salem University) | 12 | - | 3 | - | - | 4 | 19 | August |
| Zariagi | - | - | - | - | 7 | 5 | 12 | September |
| | - | - | - | - | 3 | 1 | 4 | October |
| Zariagi | - | - | 1 | - | 1 | 6 | 8 | November |
| Kabba Junction | 2 | - | - | - | 15 | 2 | 19 | December |
| Total(%) | 28 | | 4 | | 36 | 31 | 101 | |

The accident conditions of children involved in road traffic crashes at different routes in Lokoja as shown in Table 8 varies from minor to severe. Many of the children reportedly died in road traffic

crashes. More than 60% of accidents occurred along the federal or major roads, particularly along Lokoja- Kabba route and Lokoja- Abuja route in the city.

Table 8: Reported Cases of Children Involved in Road Traffic Crashes at Federal Medical Centre Lokoja, Lokoja, Kogi State

| File | Sex | Age | Accident Location | Part Involved in bruises | Condition of patient | Days in Hospital | Survival |
|--------------------|-----|------------------|--|--|--|------------------|---|
| 790564 28/11/15 | M | 15 | NTA Roundabout Lokoja | Facial bruises on motorcycle | Minor accident on motorcycle | 3 days | Survive and discharged |
| 790429 13/12/15 | M | 16 | Head on collision of two buses at Kabba junction | Humerus fracture | Severe accident brought in unconscious | 1 months | Later referred |
| 790422 18/12/15 | F | 17 | Head on collision of two buses Kabba Junction | Right upper limb fracture | Severe accident | 2 months | Survival discharge follow-up |
| 790565 5/11/15 | M | 13 | Truck and car Peugeot collision at Felele Lokoja | Upper Lip and shoulder laceration | Severe accident | 17 days | Discharge |
| 790563 5/11/15 | M | 13 | Frontal scalp avulsion and clip dislocation Ajaokuta Lokoja Road | Frontal scalp avulsion and Hip dislocation | Brought in unconscious | 1 month | Referred conscious |
| 790575 3/1/16 | M | 6 | - | Avulsion of right Hip & Tendon involvement | Not Severe Conscious | 2 hours | Discharged for outpatient treatment |
| 790979 8/2/16 | M | 14 | Lokoja - Abuja Road | Pelvic fracture | Severe unconscious | 6 hours | Referred to university of Abuja Teaching Hospital |
| 791235 16/2/16 | F | 5 | NTA Roundabout Lokoja | Facial bruises on both arms | Minor accident | 4 hours | Discharged as outpatient |
| 791293 18/3/16 | F | 2 ½ | Ajaokuta – Lokoja Road | Motorcycle Bilateral per orbital swelling | On motorcycle | 7 days | Discharged later |
| 872781 6/9/16 | F | 1 years 4 months | Ganaja Junction | Motorcycle Right hand fraction | Severe | 3 months | Discharged as orthopaedic case |
| 872944 6/9/16 | F | 7 | Kabawa Area Lokoja | Bleeding from mouth | Minor accident on motorcycle | 3 hours | Discharged |
| 7907891 | M | 12 | Abuja-Lokoja | Head Injury | Unconscious | 6 days | Died |
| 7907992 2/3/6 | F | 13 | Koto- Karffe road | Oral bleeding Head on collision of two buses | Minor | 1 day | Discharged |
| 797192 27/3/16 | M | 15 | Ajaokuta - Lokoja Road | Collision of bus and Motorcycle bleeding from Nose and Ear | Severe accident | 7 days | Discharged and referred |

Source: Unpublished Cases of Children Involved in Road Traffic Crashes extracted from Archive of Accident and Emergency Sections at Federal Medical Centre Lokoja

5. Conclusion and Planning Implications

The study examined the characteristics of automobile trip to school in Lokoja, an emerging city in north central Nigeria. At the introductory part of the study, the paper discussed the trend of automobile demand in Nigeria and the pattern of children traffic crashes as a result of high demand for automobile trip to school. The methodological section utilised both primary and secondary data to elicit information on the mode preference of children to school in Lokoja. Also, data relating to road traffic crashes of children were obtained from archive sources. Descriptive and inferential statistics were used to analyse the data. A number of issues were highlighted. One is that the town planners did not envisage the population explosion of the city in years ahead. But as the years went by, population almost quadrupled to an alarming rate, making it very difficult for a new plan to be formulated. With this increase came also the increase of automobiles, tricycles, motorcycles, etc. Thus road crashes was a resultant effect. Evidence from the literature showed how developed economies like USA, Italy and Austria etc managed their population increase, especially as it concern students trip to school. The results of the research reveal that more than 70% of children rely on automobile (tricycle, motorcycle, school bus and car) for their trips to school. The resultant effects of this are high traffic crashes by children on both intra and inter -city roads in Lokoja metropolis. Many children involved in road traffic crashes in the last few years have sustained minor and serious injuries, while many have lost their lives in the course of their trips to school in the city. The study made far reaching recommendations. First the study recommends the need to encourage the use of school buses in Lokoja and similar other cities in Nigeria so as to minimise large number of vehicular movement on roads as this may likely reduce casualties among school children as a result of road traffic crashes. This recommendation could be backed by legislation. Similarly the study also recommends that there is the need to improve road transport infrastructure through the provision of pedestrian walk ways so as to encourage children to engage in active walking to schools rather than relying on automobile trips to schools. And finally, security operatives who have been furnished with different routes that students use to school be tasked to ensure that safety measures are adhered strictly, to curb crashes in this emerging city, Lokoja in North Central Nigeria.

Acknowledgement

This research did not receive any grant from any funding agencies.

Conflict of interests

The author declares no conflict of interest.

References

- Adetunji M. A. (2017). Assessment of Traffic Delay on Selected Route Segments in Lokoja, Kogi State, Nigeria. *Canadian Journal of Tropical Geography (CJTG)*, 4 (1): 1-10, Published by the Department of Geography, Laurentian University, Sudbury, Ontario, Canada. <https://www3.laurentian.ca/rcgt-cjtg/volume-4-issue-1/assessment-of-traffic-delay-on-selected-route-segments-in-lokoja-kogi-state-nigeria/?lang=en>
- Adetunji, M.A., Aloba, O. (2018). Analysis of the Distribution Pattern and Accessibility of Students to Secondary Educational Facilities in Lokoja, Kogi State, Nigeria. *Journal of Analele Universității din Oradea - Seria Geografie*, XXVIII (1): 113-124, Department of Geography, Tourism and Territorial Planning, University of Oradea, Romania. http://www.geografie-uradea.ro/Reviste/Anale/on_line_first.html
- Adeoye, N. O. (2012). Spatio-Temporal Analysis of Land Use/Cover Change of Lokoja: A A Confluence Town, *Journal of Geography and Geology*, 4(4): 40 -51. <https://doi.org/10.5539/jgg.v4n4p40>
- Badri, M. A. (2013). School Travel Modes: Factors Influencing Parental Choice in Abu Dhabi. *International Journal of Education Economics and Development*, 4(3) 203-218. <https://dx.doi.org/10.1504/IJEED.2013.056010>
- Baker, J., Basu, R., Copper, M., Lall, S., Takeuchi, A. (2005). Urban Poverty and Transport: The case of Mumbai. *World Bank Policy Research Working Paper* S3693, 2005. <http://documents.worldbank.org/curated/en/891271468258270484/Urban-poverty-and-transport-the-case-of-Mumbai>
- Bradshaw, R. (1995). Why do Parents Drive their Children to Schools?. *Traffic Engineering and Control*, 1995; 36(1): 16-19. Downloaded on May 31, 2017. Available online http://scholar.googleusercontent.com/scholar?q=cache:drpbLYzcC-cJ:scholar.google.com/&hl=en&as_sdt=0.5

- Centres for Disease Control and Prevention, (CDCP). (2012). Physical Activity and the Health of Young People. https://www.who.int/dietphysicalactivity/factsheet_young_people/en/
- Collins, D. and Kearns, R. (2001). The safe journey of an enterprising school: negotiating landscapes of opportunity and risk. *Health & Place*, Vol. 7, No.4, pp. 293- 306. [http://dx.doi.org/10.1016/S1353-8292\(01\)00021-1](http://dx.doi.org/10.1016/S1353-8292(01)00021-1)
- Crawford, D. (2006). 'Personal, family, social and environmental correlates of active commuting to school', *American Journal of Preventive Medicine*, Vol.30, No. 1, pp.5-51. <http://dx.doi.org/10.1016/j.amepre.2005.08.047>
- Department for Transport. (2013). National Travel Survey: England 2013. Statistical Release Department for Transport, London. <https://www.gov.uk/government/statistics/national-travel-survey-2013>
- Easton, S., Ferrari, E. (2015). Children's Travel to School- The Interaction of Individual, Neighbourhood and School Factor. *Transport Policy* 14(2015), 9-18. <https://doi.org/10.1016/j.tranpol.2015.05.023>
- Federal Medical Centre. (2017). Unpublished Cases of Children Involved in Road Traffic Crashes extracted from Achieve of Accident and Emergency Sections at Federal Medical Centre Lokoja
- Federal Road Safety Corps (FRSC). (2017). Creating a Safe Motoring Environment in Nigeria, 2017 Annual Report of Federal Road Safety Corps: P. 1-252. <https://frsc.gov.ng/wp-content/uploads/2018/09/AnnualReport2017.pdf>. Accessed on 30/11/2018
- Goeverden, C.D.V., Boer, E. D. (2013). School Travel Behaviour in the Netherlands and Flanders, *Transport Policy*, 26 (1), 73-84. <http://dx.doi.org/10.1016/j.tranpol.2013.01.004>
- Kim, C. (2014). The Journey to School: A Case Study at Mission Hill School. A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Mater of Arts in Urban Environmental Policy and Planning, Tufts University. <http://sites.tufts.edu/MaryDavis/files/2014/04/The-Journey-to-School-Christina-Kim.pdf>
- Kopnina, H., Williams, M. (2012). Car Attitudes in Children from Different Socio-economic Background in the Netherlands. *Transport Policy*, 24(1), 118-125. <https://doi.org/10.1016/j.tranpol.2012.07.010>
- Krejcie, V. R., Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(1): 607-610. https://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf
- National Bureau of Statistics. (2017). Nigeria's Vehicle Population Data Reveals Towering Opportunities. <https://nairametrics.com/vehicle-population-in-nigeria-is-11547236-nbs-data/>. Accessed on 26-11-2018
- NPC 2006 – Nigerian Population Commission. (2007). Pg.B194 Federal Republic of Nigeria Official Gazette 15 may, 2007. No 24 Vol. 94
- The World Health Organisation's Global Status Report on Road Safety. (2015). These are the Countries with the Most Vehicles Per Person. https://www.who.int/violence_injury_prevention/road_safety_status/2015/en/
- The Car Crash Detective. (2018). School Buses Safer than Driving / Walking Your Child to School. <https://www.thecarcrashdetective.com/school-buses-safer-than-driving-walking-child-school/>
- Ogunsanya, A. A. (2004). Perspectives on Urban Transportation in Nigeria. Edited by Ogunsanya, A. A: Vandu-Chikolo, I and Sumaila, A.G. *Nigeria Institute of Transport Technology* (NITT), Zaria. Kaduna MOD Press,1-26
- Ipingbemi, O; Aiworu, A.B. (2013). Journey to School, Safety and Security of School Children in Benin City. *Transportation Research Part F*. 19, 77-84. <https://doi.org/10.1016/j.trf.2013.03.004>.

Olawole, M.O; Olaposi O.M. (2016). Mode Choice of Undergraduates: A Case Study of Lecture Trips in Nigeria. *The Indonesian Journal of Geography, Faculty of Geography and Indonesian Geographers Association (IJG)*. 48(2)145-156. <https://doi.org/10.22146/ijg.17630>.

Olawepo R. A. (2009). Evaluating Housing Problems through Participatory Rural Appraisal in Lokoja, Nigeria. *African Research Review*, 3(1): 77-96. <http://dx.doi.org/10.4314/afrrev.v3i1.43557>.

**How to Cite this Article:**

Adetunji, M. A. (2020). Automobile Trips to School and Safety Perspectives of Unplanned Lokoja Metropolis in North Central Nigeria. *Journal of Contemporary Urban Affairs*, 4(1), 61-70. <https://doi.org/10.25034/jcua.2020.v4n1-6>